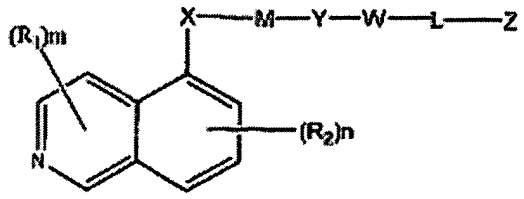
Amendments to the Claims

The following listing of claims replaces all prior listings and version of claims in this application.

1. (Original) A compound of Formula I:



Formula I

wherein:

R_1 and R_2 are independently selected from the group consisting of hydrogen, a lower alkyl group, a lower alkoxy group, substituted or unsubstituted phenyl group, a lower alkyl substituted with at least one substituent selected from the group consisting of a phenyl group, a halogen, hydroxyl, thiol, nitro, cyano, or amino group; m and n are each independently 0-3;

X is selected from the group consisting of $S0_2$-NH, S and O ;

M represents substituted or unsubstituted alkylene of 1-4 carbon atoms;

Y is selected from the group consisting of amide, amine, urea, carbamate, hydrazine or sulfonamide;

W is absent or is selected from the group consisting of substituted or unsubstituted alkylene, aliphatic, aromatic or heterocyclic moiety, of 1-18 carbon atoms;

L is absent or is selected from the group consisting of amide, amine, urea, carbamate, hydrazine or sulfonamide; and

Z is a peptide or peptidomimetic moiety of 4-12 residues in length capable of binding to the substrate site of PKB.

2. (Original) The compound of claim 1 wherein, in Formula I:

R_1 and R_2 are independently selected from the group consisting of methyl, ethyl, ethoxy and dimethylamine;

m and n are each 1;

X is selected from the group consisting of $S0_2$-NH and S;

M represents substituted or unsubstituted alkylene of 2 carbon atoms;

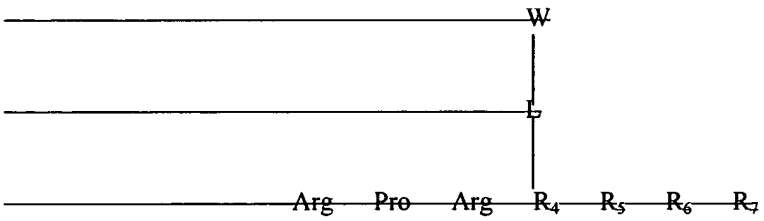
Y is selected from the group consisting of amide and amine;

W is absent or is selected form the group consisting of substituted or unsubstituted alkylene, aliphatic, aromatic or heterocyclic moiety of 1-5 carbon atoms;

L is absent or is selected from the group consisting of amide and amine; and

Z is a peptide or peptidomimetic moiety of 6-10 residues in length capable of binding to the substrate site of PKB.

3. (Currently amended) [[A]] The compound of Formula I [[IIa:]]



~~Formula IIa~~

according to claim 1 wherein:

Z is ~~Arg—Pro—Arg—R_4—R_5—R_6—R_7~~;

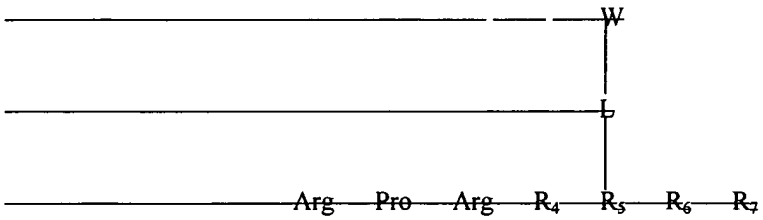
R_4, R_5, and R_6 are each independently selected from the group consisting of threonine, serine, glutamic acid allyl ester, homocitrulline, lysine, methionine, norleucine, ornithine, arginine, glycine, diaminopropionic acid, diaminobutyric acid, $GlyNH_2$, and alanine; or are an N^{α}-ω-functionalized derivative of an amino acid selected from the group of glycine, alanine and tyrosine;

R_7 is selected from the group consisting of phenylalanine, homoleucine, norleucine, glutamic acid allyl ester;

W [[is]] may be absent so that Y is connected to L or R_4, or W is N-(8-sulfonamide-5-isoquinoline) ethylenediamine; and

L may be absent so that W (if present) or Y is connected to R_4, or L is selected from the group consisting of glycine, β-alanine, phenylalanine, aminobutyric acid and aminopentanoic acid and connects W (if present) or Y with R_4.

4. (Currently amended) [[A]] The compound of Formula I [[IIb:]]



Formula IIb

according to claim 1 wherein:

Z is Arg—Pro—Arg—R_4—R_5—R_6—R_7;

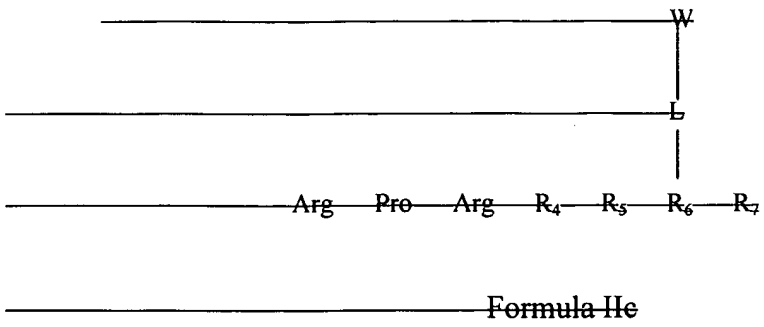
R_4, R_5, and R_6 are each independently selected from the group consisting of threonine, serine, glutamic acid allyl ester, homocitrulline, lysine, methionine, norleucine, ornithine, arginine, glycine, diaminopropionic acid, diaminobutyric acid, $GlyNH_2$, and alanine; or are an N^{α}-ω-functionalized derivative of an amino acid selected from the group of glycine, alanine and tyrosine;

R_7 is selected from the group consisting of phenylalanine, homoleucine, norleucine, glutamic acid allyl ester;

W [[is]] may be absent so that Y is connected to L or R_5, or W is N-(8-sulfonamide-5-isoquinoline) ethylenediamine; and

L may be absent so that W (if present) or Y is connected to R_5, or L is selected from the group consisting of glycine, β-alanine, phenylalanine, aminobutyric acid and aminopentanoic acid and connects W (if present) or Y with R_5.

5. (Currently amended) [[A]] The compound of Formula I [[IIc:]]



Formula IIc

according to claim 1 wherein:

Z is Arg—Pro—Arg—R_4—R_5—R_6—R_7;

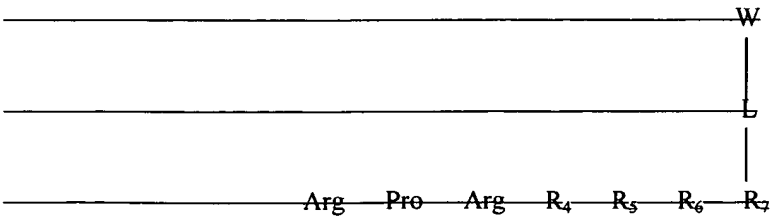
R_4, R_5, and R_6 are each independently selected from the group consisting of threonine, serine, glutamic acid allyl ester, homocitrulline, lysine, methionine, norleucine, ornithine, arginine, glycine, diaminopropionic acid, diaminobutyric acid, $GlyNH_2$, and alanine; or an N^{α}-ω-functionalized derivative of an amino acid selected from the group of glycine, alanine and tyrosine;

R_7 is selected from the group consisting of phenylalanine, homoleucine, norleucine, glutamic acid allyl ester;

W [[is]] may be absent so that Y is connected to L or R_6, or W is N-(8-sulfonamide-5-isoquinoline) ethylenediamine; and

L may be absent so that W (if present) or Y is connected to R_6, or L is selected from the group consisting of glycine, β-alanine, phenylalanine, aminobutyric acid and aminopentanoic acid and connects W (if present) or Y with R_6.

6. (Currently amended) [[A]] The compound of Formula I [[IId:]]



~~Formula IId~~

according to claim 1 wherein:

Z is ~~Arg—Pro—Arg—R_4—R_5—R_6—R_7;~~

R_4, R_5, and R_6 are each independently selected from the group consisting of threonine, serine, glutamic acid allyl ester, homocitrulline, lysine, methionine, norleucine, ornithine, arginine, glycine, diaminopropionic acid, diaminobutyric acid, $GlyNH_2$, and alanine; or are an N^{α}-ω-functionalized derivative of an amino acid selected from the group of glycine, alanine and tyrosine;

R_7 is selected from the group consisting of phenylalanine, homoleucine, norleucine, glutamic acid allyl ester;

W [[is]] may be absent so that Y is connected to L or R_7, or W is N-(8-sulfonamide-5-isoquinoline) ethylenediamine; and

L may be absent so that W (if present) or Y is connected to R_7, or L is selected from the group consisting of glycine, β-alanine, phenylalanine, aminobutyric acid and aminopentanoic acid and connects W (if present) or Y with R_7.

7. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Thr-Glu- (bAla-5-mercaptoaminopropyl-isoquinoline)-Ser-Phe.

8. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Thr-Glu- (5-mercaptoaminopropyl-isoquinoline)-Ser-Phe.

9. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Om-Glu- (5-aminoethylsulfonamide isoquinoline)-Ser-Phe.

10. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Nva-Glu- (5-mercaptoaminopropyl-isoquinoline)-Ser-Phe.

11. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Nle-Glu- (5-mercaptoaminopropyl-isoquinoline)-Ser-Phe.

12. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Orn-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Hol-

13. (Original) The compound according claim 1 comprising the sequence: Arg-Pro-Arg-Nle-Glu- (Gly-5-aminoethylsulfonamide)-Dab-Phe

14. (Original) The compound according to claim 1 comprising the sequence: Arg-Pro-Arg-Nle-Glu-(Gly-5-aminoethylsulfonamide)-Dab-Hol

15. (Original) A pharmaceutical composition comprising as an active ingredient a compound according to claim 1, and a pharmaceutically acceptable diluent or carrier.

16. (Original) A protein kinase inhibitor comprising as an active ingredient a compound according to claim 1, and a pharmaceutically acceptable diluent or carrier.

17. (Original) A method of treatment of a disease comprising administering to a patient in need thereof a therapeutically effective amount of a compound according to claim 1.

18. (Original) The method according to claim 17 wherein the disease is selected from the group comprising cancers, diabetes, cardiovascular pathologies, hemorrhagic shock, obesity, inflammatory diseases, diseases of the central nervous system, and autoimmune diseases.

19. (Original) A method of diagnosis of a disease comprising administering to a patient in need thereof a diagnostically effective amount of a compound according to claim 1.